

AN UNDESCRIBED SPECIES OF *CLYTOCOSMUS* SKUSE.

(Tipulidae, Diptera.)

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(Communicated by R. J. Tillyard, M.A., D.Sc., F.L.S., F.E.S.)

The genus *Clytocosmus* was erected by Skuse* to receive the remarkably beautiful new species of crane-fly, *Clytocosmus helmsi*, from Mt. Kosciusko, New South Wales. The genus has remained monotypic until the present day. Through the kindness of Dr R. J. Tillyard, I am now able to describe a second species, a superb fly from the Dorriggo Tableland, about three hundred miles north of Sydney. Some time ago Dr. Tillyard wrote me that he had once found a magnificent crane-fly in the Northern scrubs with much the general appearance of a great robber-fly. The only specimen then in his possession was an injured female in rather poor condition to be made a type. An effort was made to secure additional specimens during March and April, 1919, when the insect was due to appear on the wing, but a prolonged drought, followed by floods, badly damaged the habitat frequented by this fly, and it was impossible to secure more material at this time. Dr. Tillyard has kindly sent me the unique specimen above discussed, and it is made the type of the new species described herewith. It is with great pleasure that this exquisite creation is dedicated to Dr. Tillyard, through whose kindly interest the species was first made known to science. The type has been returned to Dr. Tillyard, and will ultimately be placed in the Australian Museum with the Skuse types.

The two known species of *Clytocosmus* may be separated by means of the following key:—

Prothorax black; mesonotal praescutum orange with a black spot anteriorly; pseudosutural foveae black; scutellum and postnotum velvety black; thoracic pleura velvety black with brown and white spots; abdomen velvety black with white spots, only the genital segment reddish fulvous *helmsi* Skuse.

Prothorax orange; mesonotal praescutum orange without black markings; pseudosutural foveae orange; concolorous with the remainder of the praescutum; scutellum and postnotum orange; thoracic pleura orange with white spots; abdomen orange with tergites one, the caudal part of three, and segments four to seven black with white spots *tillyardi* n.sp.

CLYTOCOSMUS TILLYARDI, n.sp.

General colouration fiery orange, the thoracic pleura spotted with white; legs black; wings yellow, the posterior and anal cells with paler centres; abdomen with the basal tergite black with lateral white spots; intermediate tergites (three to six, and the caudal part of two) similar to the basal tergite; remainder of the abdomen orange.

♀.—Length, 33.5 mm.; wing, 22 mm.; head alone, 5 mm.; thorax alone, 7.5 mm.; abdomen alone, 21 mm.; hind leg, femur, 13 mm.; fore leg, femur, 9 mm.; tibia, 9.2 mm.

Frontal prolongation of the head bright orange, long and slender (2.3 mm.), with no indication of a nasus; dorsal surface with small, scattered, erect or

*Proc. Linn. Soc. N. S. Wales, 2nd. Ser., V., 1890, pp. 74-76.

slightly proclinate hairs, the lateral and ventral surfaces glabrous; palpi and mouth-parts dark brown. Antennae with the first segment orange, stout, narrow at base, with two or three pale, transverse rings beyond midlength; second segment dark brown, the base obscure yellow; flagellum broken. Summit of the vertex immediately behind the antennal bases. Head fiery orange with numerous short black setae that become very long and dense on the curiously buccate post-genae. Eyes relatively small with fine onmatidia.

Pronotum narrow, flattened, dull orange. Mesonotal praescutum fiery orange, the margin with a moderately broad white line; interspaces pale with numerous, short, erect setae; the broad median stripe is split by a capillary white line; scutum orange, the lobes fiery orange, margined proximally and caudally and less distinctly laterally with white; scutellum moderately projecting, orange, with a large whitish spot on either side; postnotum orange. Pleura orange, spotted with white; a spot on the mesepisternum, immediately behind the anterior spiracle; another on the mesepimeron immediately beneath the wing-base; three others surrounding the posterior spiracle; a large blotch on the sides of the mesosternum between the fore and middle coxae. Halteres with the base of the stem orange, the remainder of the halteres broken. Legs with the coxae orange, more or less whitish on the outer face, least distinct on the posterior coxae; coxae clothed with delicate hairs, shortest on the posterior coxae; trochanters blackish, indistinctly margined distally with red; femora and tibiae black; tarsi broken; fore legs much shorter than the hind legs. Wings with a strong yellowish tinge, darkening into fulvous brown in the apical and caudal portions; veins conspicuously yellow; centres of cells *M*, *1st M*₂, *2nd M*₂, *M*₄, *Cu*₁, *1st A* and *2nd A* paler. Venation: *Sc*₁ lacking, *Sc*₂ ending in *R*₁ just before *r*; cell *R*₂ narrowed at its inner end; cell *1st M*₂ large, pentagonal; petiole of cell *M*₁ short, about one-half of *m*. Macrotrichiae on the veins lacking or very sparse.

Abdomen with the first tergite narrowly margined with orange, the disk deep black with a large rounded white spot near each cephalic—lateral angle; suture between tergites one and two ill-defined; tergite two with the basal half orange with a small, median, basal, black mark, the caudal half black with a rounded, lateral, white spot and much fainter submedian spots; tergites three to six black, each with the conspicuous, rounded, lateral, white spot, the third and fifth also with fairly distinct, submedian, white markings; each of these black tergites, proximal and caudad of the lateral white spots, have about six or seven small, lens-shaped silvery dots arranged in a roughly oblique group; on each of the second and third tergites, cephalad of the lateral white spots is a small, transverse, impressed area as in many other Tipuline crane-flies; seventh to ninth tergites orange. Sternites uniformly orange. On the ventral surface of the abdomen, nine distinct and approximately subequal sternites are visible; on the dorsal surface, however, there are ten tergites visible unless we consider the first tergite as fused with the very long second tergite as above described; in this latter case, the basal tergite is as long as the basal three sternites; tergites three to seven are approximately equal in length, but the last two are greatly narrowed. Ovipositor horn-coloured, the tergal valves long, straight and very slender; sternal valves much shorter, compressed, the tips obliquely truncate.

Hab.—New South Wales.

Holotype, ♀, Ulong, on the spurs of the Dorrigo Tableland, altitude about 2000 feet, April, 1917 (W. Heron).

Type returned to Dr. Tillyard.